

What Is Claimed Is:

1. An organic electroluminescent display device, comprising:
 - first and second substrates bonded together, the first and second substrates having a plurality of pixel regions;
 - a plurality of driving elements on an inner surface of the first substrate within each of the plurality of pixel regions;
 - a plurality of connection electrodes contacting the driving elements;
 - a black matrix on an inner surface of the second substrate at a boundary of each of the plurality of pixel regions;
 - a color filter layer including red, green, and blue color filters on the inner surface of the second substrate, each of the red, green, and blue color filters corresponding to each of the plurality of pixel regions;
 - a first electrode on the black matrix and the color filter layer;
 - an organic electroluminescent layer on the first electrode; and
 - at least one second electrode on the organic electroluminescent layer,wherein the at least one second electrode contacts the connection electrodes.
2. The device according to claim 1, wherein the organic electroluminescent layer includes an organic material emitting white light.

3. The device according to claim 1, wherein the organic electroluminescent layer includes an organic material emitting red, green, and blue colored light corresponding to each of the red, green, and blue color filters.
4. The device according to claim 1, further comprising a plurality of sidewalls on the first electrode corresponding to the black matrix.
5. The device according to claim 1, further comprising a planarization layer between the first electrode and the color filter layer, the planarization layer includes a transparent insulating material.
6. The device according to claim 1, wherein the first electrode includes one of a indium-tin-oxide (ITO) and indium-zinc-oxide (IZO).
7. The device according to claim 1, wherein the at least one second electrode includes at least one of aluminum (Al), calcium (Ca), magnesium (Mg), and lithium (Li).
8. The device according to claim 1, wherein the organic electroluminescent layer includes a hole-transporting layer and an electron-transporting layer.

9. The device according to claim 1, wherein the at least one second electrode includes a plurality of the second electrodes.

10. The device according to claim 9, wherein each of the plurality of second electrodes contact each of the connection electrodes.

11. The device according to claim 9, wherein each of the plurality of second electrodes include a double layered structure including lithium flourine and aluminum.

12. A method of fabricating an organic electroluminescent display device, comprising:

forming a plurality of driving elements on a first substrate having a plurality of pixel regions;

forming a connection pattern contacting the driving elements;

forming black matrix on a second substrate having the plurality of pixel regions, the black matrix being formed along a boundary of each of the plurality of pixel regions;

forming a color filter layer including red, green, and blue color filters on a second substrate, each of the red, green, and blue color filters corresponding to each of the plurality of pixel regions;

forming a first electrode on the black matrix and the color filter layer;

forming an organic electroluminescent layer on the first electrode;

forming at least one second electrode on the organic electroluminescent layer; and

bonding the first and second substrates together,

wherein the connection pattern contacts the at least one second electrode.

13. The method according to claim 12, wherein the organic electroluminescent layer includes an organic material emitting white light.

14. The method according to claim 12, wherein the organic electroluminescent layer includes an organic material emitting red, green, and blue colored lights corresponding to each of the red, green, and blue color filters.

15. The method according to claim 14, further comprising forming a plurality of sidewalls on the first electrode corresponding to the black matrix.

16. The method according to claim 14, further comprising forming a planarization layer between the first electrode and the color filter layer, the planarization layer includes a transparent insulating material.

17. The method according to claim 14, wherein the organic electroluminescent layer includes a hole-transporting layer and an electron-transporting layer.

18. An organic electroluminescent display device, comprising:

first and second substrates bonded together, the first and second substrates having a plurality of pixel regions;

a plurality of driving elements on an inner surface of the first substrate within each of the plurality of pixel regions;

a first electrode connected to the driving elements;

an organic electroluminescent layer on the first electrode;

at least one second electrode on the organic electroluminescent layer;

a black matrix on an inner surface of the second substrate along a boundary of each of the plurality of pixel regions; and

a color filter layer including red, green, and blue color filters on the inner surface of the second substrate, each of the red, green, and blue color filters corresponding to each of the plurality of pixel regions.

19. The device according to claim 18, wherein the organic electroluminescent layer includes an organic material emitting white light.

20. The device according to claim 18, wherein the organic electroluminescent layer includes an organic material emitting red, green, and blue colored light corresponding to each of the red, green, and blue color filters.

21. The device according to claim 18, further comprising a plurality of sidewalls on the first electrode corresponding to the black matrix.

22. The device according to claim 18, wherein the first electrode includes one of indium-tin-oxide (ITO) and indium-zinc-oxide (IZO).

23. The device according to claim 18, wherein the organic electroluminescent layer includes a hole-transporting layer and an electron-transporting layer.

24. The device according to claim 18, wherein the at least one second electrode includes at least one of aluminum (Al), calcium (Ca), magnesium (Mg), and lithium (Li).

25. The device according to claim 24, wherein the at least one second electrode includes a plurality of the second electrodes.

26. The device according to claim 25, wherein each of the plurality of second electrodes are connected to the organic electroluminescent layer.

27. A method of fabricating an organic electroluminescent display device, comprising:

- forming a plurality of driving elements on a first substrate having a plurality of pixel regions;

- forming a first electrode connected to the driving elements;

- forming an organic electroluminescent layer on the first electrode;

- forming a second electrode on the organic electroluminescent layer;

- forming a black matrix on a second substrate having the plurality of pixel regions, the black matrix being formed along a boundary of each of the plurality of pixel regions;

- forming a color filter layer including red, green, and blue color filters on the second substrate, each of the red, green, and blue color filters corresponding to each of the plurality of pixel regions; and

bonding the first and second substrates together,
wherein the color filter layer faces the second electrode.

28. The method according to claim 27, wherein the organic electroluminescent layer includes an organic material emitting white light.

29. The method according to claim 27, wherein the organic electroluminescent layer includes an organic material emitting red, green, and blue colored lights corresponding to each of red, green, and blue color filters.

30. The method according to claim 27, further comprising forming a plurality of sidewalls on the first electrode corresponding to the black matrix.

31. The method according to claim 27, wherein the organic electroluminescent layer includes a hole-transporting layer and an electron-transporting layer.

32. An organic electroluminescent display device, comprising:
a plurality of driving elements on an inner surface of a first substrate within each of a plurality of pixel regions;
a plurality of connection electrodes contacting the driving elements;

a black matrix on an inner surface of the second substrate at a boundary of each of the plurality of pixel regions;

a color filter layer including red, green, and blue color filters on the inner surface of the second substrate, each of the red, green, and blue color filters corresponding to each of the plurality of pixel regions;

a first electrode on the black matrix and the color filter layer;

an organic electroluminescent layer on the first electrode; and

a plurality of second electrodes on the organic electroluminescent layer,

wherein each of the second electrodes contact one of the connection electrodes.

33. An organic electroluminescent display device, comprising:

a plurality of driving elements on an inner surface of a first substrate within each of a plurality of pixel regions;

a plurality of connection electrodes contacting the driving elements;

a black matrix on an inner surface of the second substrate at a boundary of each of the plurality of pixel regions;

a color filter layer including red, green, and blue color filters on the inner surface of the second substrate, each of the red, green, and blue color filters corresponding to each of the plurality of pixel regions;

a first electrode on the black matrix and the color filter layer;
a plurality of sidewalls on the first electrode corresponding to the black matrix;
a plurality of organic electroluminescent layer segments on the first electrode between the sidewalls, each of the organic electroluminescent segments include a hole-transporting layer and an electron-transporting layer; and
a plurality of second electrodes each on one of the organic electroluminescent layer segments,
wherein each of the second electrodes contact one of the connection electrodes.

34. An organic electroluminescent display device, comprising:

a plurality of driving elements on an inner surface of a first substrate within each of a plurality of pixel regions;
a plurality of first electrodes contacting each of the driving elements;
a black matrix on an inner surface of the second substrate at a boundary of each of the plurality of pixel regions;
a color filter layer including red, green, and blue color filters on the inner surface of the second substrate, each of the red, green, and blue color filters corresponding to each of the plurality of pixel regions;

a planarization layer on the black matrix and the color filter layer;
a second electrode on the planarization layer; and
an organic electroluminescent layer on the second electrode,
wherein the organic electroluminescent layer contacts each of the first
plurality of electrodes.